

## **Research Gaps Based on Past and Current Work by The Estuary Partnership**

Sutherland, G. Bruce  
Lower Columbia River Estuary Partnership  
Portland, Oregon, USA  
[Sutherland.Bruce@lcrep.org](mailto:Sutherland.Bruce@lcrep.org)

The Lower Columbia River Estuary Partnership is a nonprofit organization whose mission is to protect and enhance the ecosystem of the lower 146 river miles of the Columbia River and Estuary. Since 1996, the Partnership has been working aggressively with stakeholders on the lower river to develop and implement a comprehensive resource management plan. The Lower Columbia Estuary Plan contains 43 specific actions that address critical problem areas identified during the 1990 to 1995 Bi-State Water Quality Study. The problem areas include: a 50% loss of key habitats, elevated levels of conventional and toxic pollutants, public indifference, and institutional constraints.

A key part of the Estuary Plan is the Aquatic Ecosystem Monitoring Strategy. The Strategy, developed by a group of technical experts under the leadership of the US Geological Survey, provides the framework for a comprehensive ecosystem monitoring program. It contains a series of recommendations for monitoring and research work needed to fill identified knowledge gaps and establish baseline conditions. The Strategy addresses data management, toxic contaminants, habitat, conventional pollutants, exotic species and food web interactions. The main elements of the Strategy are described, its implementation is discussed, and continuing information needs are highlighted.

The Estuary Partnership has also organized and co-sponsored three technical workshops aimed at addressing key resource management issues. The first, held in May 1999, focused on how to measure the biological integrity of the study area. The second, held in March 2001, focused on developing scientifically acceptable criteria for evaluating habitat conservation and restoration projects. The third, this year's workshop on research needs identification, will address what we still need to know to effectively implement ecosystem restoration. The results of the first two workshops and their relationship to research needs are discussed and tied into the broader issue of developing a collaborative approach to improving our knowledge base and to implementing salmonid recovery and ecosystem restoration.